Name of Practice: GRAZING LAND MANAGEMENT DCR Specification for No. SL-10

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's Grazing Land Management best management practice which are applicable to all contracts entered into with respect to this practice.

A. <u>Description and Purpose</u>

This practice provides a grazing management system that will provide and ensure adequate surface cover protection to minimize soil erosion. The system will reduce sediment, nutrients, and pathogen loads in runoff.

This practice will improve the quantity, quality and utilization of forage for livestock and will reduce the risk of surface and groundwater contamination from non-point source pollution from pastures by assuring that an adequate stand of forage is available to absorb runoff and reduce pollutants.

For purposes of this practice, pastures are represented by those lands that have been seeded, usually with introduced species (i.e., tall fescue, legumes) or in some cases native plants (e.g. switchgrass or other native warm season grasses), and which are managed using agronomic practices for livestock.

B. Policies and Specifications

- 1. All fields that receive cost-share under this practice must be perennial pasture and have had all livestock previously excluded from all surface waters and sink-holes. Any field that is part of a rotational grazing system is eligible. A written Grazing Management Plan and Operation and Maintenance Plan that includes all acres in the grazing system must be prepared and followed in accordance with NRCS Standard 528 Prescribed Grazing.
- 2. The system developed with this practice must maintain adequate nutrient and pH levels to improve or maintain desired forage species composition, plant vigor, and persistence in accordance with soil test recommendations.
- 3. Locate infrastructure to facilitate grazing management and manure distribution:
 - i. Manage the type and number of livestock and the length of grazing period based on available forage and allowable utilization targets. Manage livestock rotation to new paddock subdivisions to maintain minimum grazing height recommendations and sufficient rest periods for plant recovery according to NRCS Grazing Heights and Rest Guidelines by Forage Table 1 (attached). Size pasture and subdivisions and manage animal stock densities to minimize grazing periods and maximize manure and urine distribution throughout the pasture.

- ii. Maintain adequate plant cover of at least 60% pasture stand density year round to increase rainfall infiltration and decrease runoff from pasturelands for the lifespan of the practice.
- iii. Locate feeding areas away from sensitive areas such as wetlands, sink holes, streams/creeks and adjacent drainage swales etc.
- iv. Manage distribution of nutrients and minimize soil disturbance at hay feeding sites by unrolling hay across the upland landscape throughout the pasture system when soils are well drained or move hay rings periodically.
- v. Designate a sacrifice lot/paddock to locate livestock for feeding when adequate forage is not available in the pasture system. A sacrifice lot is used during times of drought or during excessively wet soil conditions over the winter feeding season as a place to feed hay and supplements to livestock until pasture conditions are suitable for grazing or feeding without damaging the soil quality or reducing plant cover. A sacrifice lot/paddock should not drain directly into ponds, creeks or other sensitive areas and should not be more than 10% of the total pasture acreage.
- vi. Must mow pasture as needed to control woody vegetation and encourage vegetative re-growth.
- vii. Pastures not meeting minimum 60% year round cover criteria shall be replanted in accordance to NRCS standard 512 Pasture and Hay Planting. Replanting will be at the participant's expense.
- 4. Pastures must be mowed as needed no lower than indicated in NRCS Table 1, Guidelines for Grazing Heights and Rest Periods in order to control woody vegetation and encourage regrowth. Consider wildlife nesting concerns and time accordingly.
- 5. Pastures not meeting minimum 60% year round cover criteria should be replanted in accordance to NRCS Standard 512 Pasture and Hay Planting.
- 6. Drag pastures at least twice a year to break-up manure piles after livestock are removed from a field to uniformly spread the manure load or manage manure distribution through rotational grazing where livestock are moved to uniformly distribute manure and maximize forage.
- 7. The NRCS Pasture Condition Score will be used to establish a benchmark for pasture evaluation and to document pasture condition and progress. This score will be tabulated annually at the same time of the year (during the growing season) as the initial scoring. The Pasture Condition Score should not exceed 35 to be eligible for sign-up. The pasture condition score should increase each year as better pasture management techniques allow for better forage management and increased utilization.

- 8. State cost share will be provided only one time per field.
- 9. Fields utilizing this practice must not have a NRCS 528 Prescribed Grazing contract on the same fields.
- 10. This practice is subject to the requirements of NRCS Standards, 382 Fence, 314 Brush Management, 512 Pasture and Hay Planting, 516 Pipeline, 528 Prescribed Grazing, 561 Heavy Use Area Protection and 614 Watering Facilities, and 595 Pest Management.
- 11. Payment will be made after soil test recommendations and the required grazing plan are on file with the District. By accepting payment for this practice, the recipient agrees to maintain the practice for the three-year lifespan beginning Jan. 1 of the calendar year following the calendar year of certification of completion. This practice is subject to spot check by the District throughout the lifespan of the practice and failure to maintain the practice may result in reimbursement of cost-share funds.

C. Rate(s)

The cost-share rate is a one-time incentive payment of \$75 per acre.

D. <u>Technical Responsibility</u>

Technical and administrative responsibility is assigned to qualified technical DCR and District staff in consultation, where appropriate and based on the controlling standard, with DCR, and NRCS. Individuals certifying technical need and technical practice installation shall have appropriate certifications as identified above and/or Engineering Job Approval Authority (EJAA) for the designed and installed component(s). All practices are subject to spot check procedures and any other quality control measures.

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TABLE 1



Grazing Height and Rest Guidelines by Forage

Appropriate grazing and recovery periods allow forages to renew energy reserves, improve plant vigor, maintain or improve plant diversity, and provide long-term persistence of a productive forage stand. The grazing period should be adjusted based on stage of growth or forage height. Rest period between grazing events will vary in length depending on growing conditions and forage recovery.

Table 1. Guidelines for Grazing Heights and Rest Periods

Forage Species	Height to Begin Grazing (inches)	Height to End Grazing (inches)	Recovery Time (days) ¹
Tall Fescue	6-8	3-4	14-45
Orchardgrass	8-10	4-5	14-45
Bluegrass	4-6	2	14-45
Reed Canarygrass	10	3-4	14-45
Small Grains (Wheat, Rye, Oats, etc.)	8	2-3	7-15
Annual Ryegrass	6-8	3-4	7-15
Alfalfa	10-16	3-4	14-30 ²
Sericea lespedeza	8-10	4-6	14-45
Caucasian Bluestem	8-10	3-4	14-45
Bermudagrass	6	2	7-15
Switchgrass	18-24	9-12	30-45
Eastem Gamagrass	18-24	9-12	30-45
Crabgrass	6-8	2-3	14-21
Pearl Millet	18-20	8-12	10-20
Forage Sorghum	20-30	5-7	10-20
Sorghum Sudan Hybrids	20-24	5-7	10-20
Sudangrass	20-24	5-7	10-20

¹Recovery times are best based on regrowth. If pastures have not regrown, feed hay to animals in a sacrifice area.

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²Grazing types of alfalfa can sustain with shorter recovery times under optimum growth conditions compared to hay types of alfalfa.